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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/703,196	10/31/2000	Lawrence G. Roberts	4786	2755

758 7590 05/19/2004

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EXAMINER

BANANKHAH, MAJID A

ART UNIT PAPER NUMBER

2127

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/703,196	Applicant(s) ROBERTS, LAWRENCE G.	
	Examiner Majid A Banankhah	Art Unit 2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-10,17 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-10,17 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3-5-01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to application filed on October 31, 2000. Claims 6-10, 17 and 20 are considered for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-10, 17, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 in line 3 recites: "the plurality of incoming entities". There is insufficient antecedent basis for this limitation in the claim. The claim in line 1 recites; "the plurality of ordered incoming entities".

Additionally, in the second step the claim recites: "pre-processing each of the plurality of ordered incoming entities to establish an order of the plurality of ordered incoming entities". This step is confusing because, the ordered incoming entities are already ordered, here however, they are pre-assigned to establish ordering. It is unclear when the incoming entities are in order are they ordered again?

It appears that the order of first two steps should be switched. It is logical to preprocess plurality of incoming entities to establish an order of the plurality of ordered incoming entities.

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Claims 8, "the plurality of incoming packets" does not have sufficient antecedent basis. Moreover, "the extracted information" does not have proper antecedent basis in this claim. In line 6, "the stored information" does not have sufficient antecedent basis.

Claims 7, 9, and 10 are rejected for the rejection of their parent claim.

Claim 17, in the preamble, the relationship between "flows" and other elements, i.e., processors, plurality of packets and/or network is unclear. It is vague because it is unclear which one of these elements comprises a plurality of flows.

Additionally, in the preamble recites: "A method for variable time processes in parallel" is vague. It is unclear variable time is referring to what element. Processing time and/or time in between the processing of the processes.

Claim 17 appears to be replete with grammatical and idiomatic error. The claim in line 6-7 recites: "at the time when a subsequent one of in the plurality of packets comprising the one of the plurality of flows is received". The limitation is unclear to the extent that it does not permit understanding of the limitation.

Claim 20 is rejected for similar reason stated in the rejection of claim 17.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Robinson et al. (U.S.Pat. No. 6,430,184, hereinafter Robinson).

While claims 6-10, 17, and 20 were rejected under 112 second paragraph as stated above (Section 2, supra), in order to advance prosecution, claims will be treated on the merit in view of Examiner's best understanding of the disclosure and the prior art.

Per claim 6, a method for performing variable time processes in parallel on a plurality of ordered incoming entities, on a plurality of processors (Robins, U.S.Pat. No. 6,430,184) the method comprising:

assigning each of the plurality of incoming entities to one of the plurality of processors (col.7, lines 6-36, Re 40, Fig. 4);

pre-processing each of the plurality of ordered incoming entities to establish an order of the plurality of ordered incoming entities (col. 7, lines 6-36, pre-processed by the hash processor, and col. 8, lines 6-28, order of packets), and

processing each of the plurality of ordered incoming entities on the corresponding one of the plurality of processors to which it is assigned (col.), lone 37 to col. 8, line 5, scheduling of process).

Per claim 7, the method of claim 6, wherein the plurality of ordered incoming entities comprise a plurality of packets in a network (Robinson, col.2, lines 18-37).

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Per claim 8, the method of claim 7 wherein the processing comprises:

extracting information from a header of each of the plurality of incoming packets (col.7, lines 6-36, header information);

hashing the extracted information for each of the incoming packets (hash lookup engine col. 7, lines 6-36e);

storing the hashed information (col. 17, line 66 to col. 18, line 5, hash and signature value to compare a pattern matching); and

responsive to a new packet being received, comparing the hash of the extracted information for the new packet with the stored information (col. 7, lines 6-36, match a packet and flow).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-10, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson et al. (U.S.Pat., No. 6,430,184, hereinafter Robinson).

Per claim 9, the claim is rejected for the reasons stated in the rejection of claim 1, and further the limitation of "selecting one of the plurality of processors which is free to process one of the plurality of ordered incoming entities at the time that the one of the plurality of ordered incoming entities is received" is obvious because, in the art of load balancing and process scheduling, it is well known to assign the process to an idle processor when there is one available, for the reason

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to distribute the load efficiently and does not overload a processor which is already busy.

Therefore, it would have been obvious for one ordinary skill in the art at the time the invention was made to assign the incoming entity to the free processor in order to increase efficiency.

Per claims 10, 17 and 20, the claims are rejected for the reasons stated in the rejection of claim 1 and further the system of Robinson fails to explicitly teach of not starting processing of the subsequent one of the plurality of ordered incoming entities if an entity is being processed and starting processing of the subsequent one of the plurality of ordered incoming entities. However, this is called sequential processing of the incoming entities and is taught by Robinson (See Robinson, col. 15, line 65 to col. 16, line 15, and col. 19, lines 54-67). Therefore, it would have been obvious for one ordinary skill in the art at the time the invention was made not to start the processing of an incoming entity when there is another entity is being processed and in short do the processing sequentially as they are addressed.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Majid A. Banankhah** whose voice telephone number is (703) 308-6903. A voice mail service is also available at this number.

All response sent to U.S. Mail should be mailed to:

Commissioner of Patent and Trademarks

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Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park Two, 2021 Crystal Drive, Arlington, VA, Six Floor (Receptionist). All hand-delivered responses will be handled and entered by the docketing personnel. Please do not hand deliver responses to the Examiner.

All Formal or Official Faxes must be signed and sent to either (703) 308-9051 or (703) 308-9052. Official faxes will be handled and entered by the docketing personnel. The date of entry will correspond to the actual FAX reception date unless that date is a Saturday, Sunday, or a Federal Holiday within the District of Columbia, in which case the official date of receipt will be the next business day. The application file will be promptly forwarded to the Examiner unless the application file must be sent to another area of the office, e.g., Finance Division for fee charging, etc.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is **(703) 305-9600**.

Maid Banankhah

5/16/04


MAID BANANKHAH
PRIMARY EXAMINER